

# U.S. Coral Reef Monitoring Project Survey

## Part 1. Project Summary

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**Survey administered by:** ASCH

**Project ID:**

**Date Administered (dd-mo-yy):** 19-Aug.-99

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**Project title:** Growth, Recruitment, and Mortality of *Acropora palmata* (eklhorn coral) on a leeward reef track at Peter Bay, St. John USVI.

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### Principal investigators

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**Position:** Graduate student

**Department:** Biology

**Division:**

**Bureau:**

**Branch:**

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**Keywords (provide several keywords that describe project data):**

ACROPORA

GROWTH

RECRUITMENT

CORAL MORTALITY

ST. JOHN, USVI

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**Project Summary:**

Until about 20 years *Acropora palmata* (elkhorn coral) was a major component of Caribbean coral reefs. Since this time, this species has been in decline due to a coral blight. This study is monitoring the recruitment, regeneration, and mortality rates of this species in Peter Bay, which is located on the West end of Cinnamon Bay, St. John. This study began in March 1999 and will continue until the summer of 2000. Based upon the initial data that has been gathered, it seems that the population of *Acropora palmata* on this reef is recovering from the blight.

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**Spatial Coverage of Database****Spatial Coverage (briefly describe geographic extent of project):**

This project is located on Peter Bay, which is on the west end of Cinnamon Bay, St. John.

**Geographic Extent (Bounding rectangle in decimal degrees);**

North\_\_\_\_\_West\_\_\_\_\_South\_\_\_\_\_East\_\_\_\_\_

**Are data aggregated into geographic units:** ☐ yes ☒ no

**Are data available in disaggregated form:** ☒ yes ☐ no

**How was spatial accuracy determined:**

☐ NOAA Nautical Chart ☐ USGS Quad ☐ Loran ☐ County Road Map  
☐ Survey ☐ GPS ☒ Other: nautical map

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**Temporal Characteristics of Database****Temporal characteristics (brief narrative):**

This is an on-going project that began in March 1999 and will most likely continue until the summer of 2000.

**Period of Record:**

Begin (d/mo/yr): March 1999

End (d/mo/yr): approximately July 2000

**Sampling is:** ☒ Ongoing ☐ Planned ☐ Historic

**Frequency of Sampling:**

☐ Hourly ☐ Daily ☐ Weekly ☐ Monthly ☐ Annually ☒ Other: 1 to 3 times per a year

**Sampling Interval:**

☐ Fixed ☒ Intermittent

**How is sampling recorded?**

☐ Automated ☒ Non-automated

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**Data Parameters:****Specific Constituents/Parameters Sampled (include units):**

SIZE OF ACROPORA COLONIES  
NUMBER OF ACROPORA COLONIES  
NUMBER OF NEW ACROPORA COLONIES  
NUMBER OF DEAD CORAL COLONIES

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**Methodology:****Provide a short description about how monitoring data is gathered/acquired:**

Scientists investigated the colonies of elkhorn corals located in 3-10 ft. deep water by snorkeling and scuba diving. Four 100 square meter quadrants were set up by the divers. In the area of each quadrant, the number of old and new colonies of elkhorn coral was counted and recorded. Also, the divers tried to establish whether the new colonies of coral were established through larval settlement or by regenerates from other colonies. Finally, photographs of coral were taken for monitoring purposes.

**On what basis were sites selected?**

Random selection

**How are samples processed, stored, and archived in the field?**

They are stored in data books and then are collated and analyzed. At this time, not all the samples have been analyzed.

**How are samples processed, stored, and archived in the laboratory?**

They are stored on disk and on photographic film.

**What methods were used for sample analysis and quality assurance?**

☐ Data quality analysis

☐ Chemical analysis

**Describe any assumptions in assembling/acquiring monitoring data:**

Data indicates that elkhorn coral is re-establishing itself on this reef track.

**Describe the primary limitations with monitoring data:**

Any limitations would be due to the difficulty of working underwater while gathering data.

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**Database Characteristics:****Format:**

☒ Digital

☐ Map

☒ Hardcopy (reports, data sheets, tables)

☐ Other\_\_\_\_\_

**Status (check one):**

☐ Database Available/Being Distributed

☐ Portions of Database Available

☒ Data Not Available

☐ Other\_\_\_\_\_

**Predominant Data Type:**

☒ Numeric

☒ Qualitative

**How is data stored (hardware & software):**

IBM Windows

**Data Structure:**

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☐ Discrete Points (sampling site) ☐ Line/transect (e.g., shoreline, beach)  
☒ Polygon (watershed)

**Data Completeness (check one):**

☐ Data clean ☐ Data need minor work ☒ Data need major work ☐ Other: Data will not have been completely gathered until the summer of 2000.

**Data Maintenance (check one):**

☐ No maintenance ☒ Intermittent maintenance ☐ Periodic maintenance (fixed intervals)  
☐ Continuous maintenance ☐ Other\_\_\_\_\_

**Are the following elements in this database available for each sampling location (check all that apply)?**

☒ Station Location (lat/long coordinates of site or areal unit)  
☒ Frequency of Sampling (by station location)  
☒ Constituents/Parameters Sampled (by station location)  
☒ Period of Record

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**Use and Users:**

**How is data used?**

☒ Research  
☒ Monitoring  
☐ Planning  
☐ Management  
☐ Regulatory

**Users (identify specific institutions):**

☒ Federal Government: NPS  
☐ State Government  
☐ Local Government  
☐ Regional Entities  
☒ Academic: Bucknell University

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**Data Availability:**

**On-line (describe how to access, i.e., bbs, Telnet, world wide web):**

No

**Off-line: (describe how to access):**

Not yet available. Once the data is ready, it can be obtained by contacting Dan Hoffman and/or Marc Russell.

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**Are costs associated with requests?**      ☐ yes      ☒ no

**If yes, please explain:**

**Access constraints (describe briefly any constraints for accessing data set):**

The data is not yet available, but the principal investigator does not anticipate any access constraints once all the data has been collected, analyzed, and compiled.

**Use constraints (describe briefly any constraints for using data set):**

Since there are plans to publish the results of this project in an academic journal, any use restraints will be associated with copyright laws.

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